MPI-G500

500W AC / DC

FEATURES

- ✓ 500W fan cooling, 300W with convection-cooled of single output power supply.
- ✓ Compact size 3 x 5 inch and low profile.
- ✓ High efficiency up to 95%.
- ✓ No-load power consumption < 0.5W.
- ✓ Optional +5Vsb and remote on/off function.
- ✓ ITE safety standard IEC 62368-1, UL 62368-1 CE LVD (TBD).
- ✓ Design to meet EN 60335-1.

Models & Ratings

Model Number	Rated Output Power	Output Voltage	Min. Current	Rated Current	Max (Fan cooling)	Peak	Typical Efficiency
MPI-G503	300 W / 500 W	12 V	0 A	25 A	41.67 A	46.6 A	94%
MPI-G505	300 W / 500 W	24 V	0 A	12.5 A	20.83 A	23.3 A	95%
MPI-G506	300 W / 500 W	48 V	0 A	6.25 A	10.42 A	11.65 A	94%

Note：Peak power 560W Maximum 10s from start-up phase.

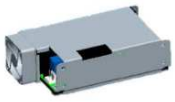
Model no. coding：M P I – G 5 0 0 – X – Y

(1) (2)

(1)

X=	Output set
blank	Single output
SB	Dual output (with +5Vsb & remote on/off function)

(2)

Y=	Cover Type
blank	No cover, open frame  127*76.2*38mm
C	With cover only  136*82*40mm
F	With cover and built-in fan  156*82*40mm

Input

Input Voltage	● 80 ~ 264VAC
Input Frequency	● 47 ~ 63 Hz
Inrush Current	● 30 / 60A
No-load power consumption	● <0.5W
Input Protection	● Fuse: 8A /300VAC * 1pc

Output

Output Voltage	● +12V, +24V
Minimum Load	● 0A
Hold up Time	● $12mS_{TYP.}$ $20mS_{MAX.}$
Total Regulation	● ±1.0
Ripple & Noise	● $120mV^{(+12V)}$, $240mV^{(+24V)}$,$480mV^{(+48V)}$
Overvoltage Protection	● The build-in over voltage protection circuit will latch off the outputs to prevent damaging external circuits, the trigger point is around 110%~135% of output voltage.
Short Circuit Protection	● Automatic recovery upon of overload condition
Remote On / Off	● The power supply will be turned on when the power On/Off pin is connected to secondary GND. This function exists only with optional +5Vsb.

General

Isolation	● IP to OP 3000 VAC IP to GND 1800 VAC
Switching Frequency	● 66 KHZ

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EMC: Immunity

ESD	IEC 61000-4-2
Radiated	IEC 61000-4-3
EFT	IEC 61000-4-4
Surges	IEC 61000-4-5
Conducted	IEC 61000-4-6
Power Magnetic	IEC 61000-4-8
Dips and Interruptions	IEC 61000-4-11

Environment

Operating Temperature	-25 ~ +80°C
Storage Temperature	-40 ~ +85°C
Relative Humidity	5 ~ 95%RH
Cooling	14.3 CFM
Operating / Non-operating Altitude	5000 m

EMC: Emissions

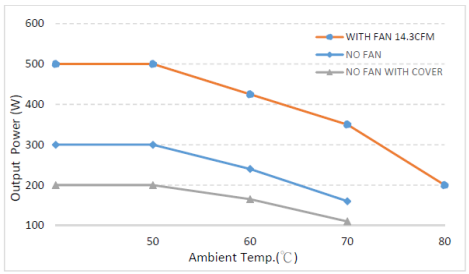
Conducted	EN 55022 /EN 55032
Radiated	EN 55022 /EN 55032
Harmonic Current	EN 61000-3-2
Voltage Flicker	EN 61000-3-3

Safety Approvals

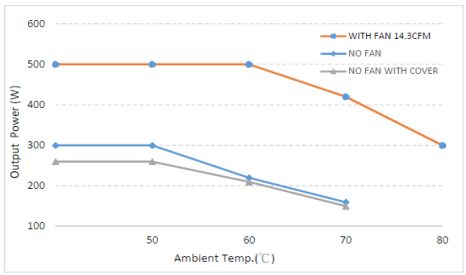
CE(LVD)	EN 62368-1, 2nd Edition
UL/cUL	UL 62368-1, 2nd Edition, CSA C22.2 No. 62368-1-14, 2nd Edition
CE	EN 60335-1, IEC 60335-1, UL 60335-1
CB	IEC 62368-1, 2nd Edition

Derating Curve

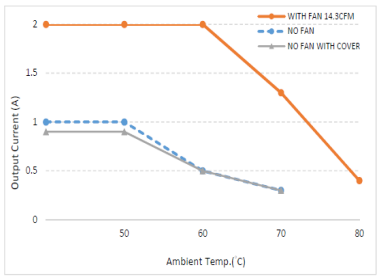
MPI-G503



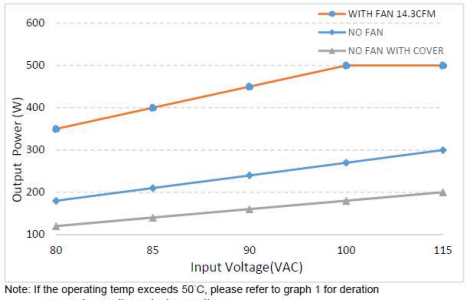
MPI-G505



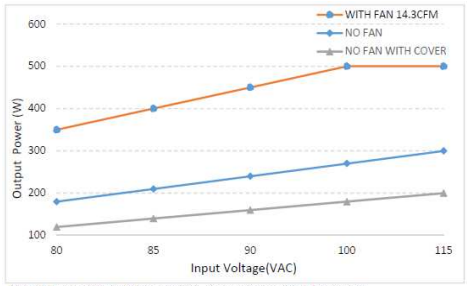
5VSB



Peak Power (W) versus Input Voltage(VAC) Curve



Note: If the operating temp exceeds 50 C, please refer to graph 1 for deration curve and according output proportion.



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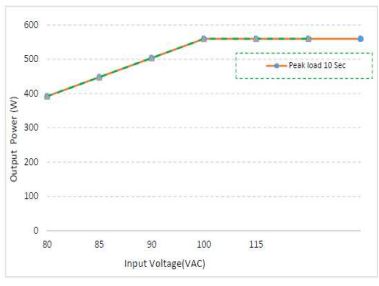


MPI-G506(TBD)

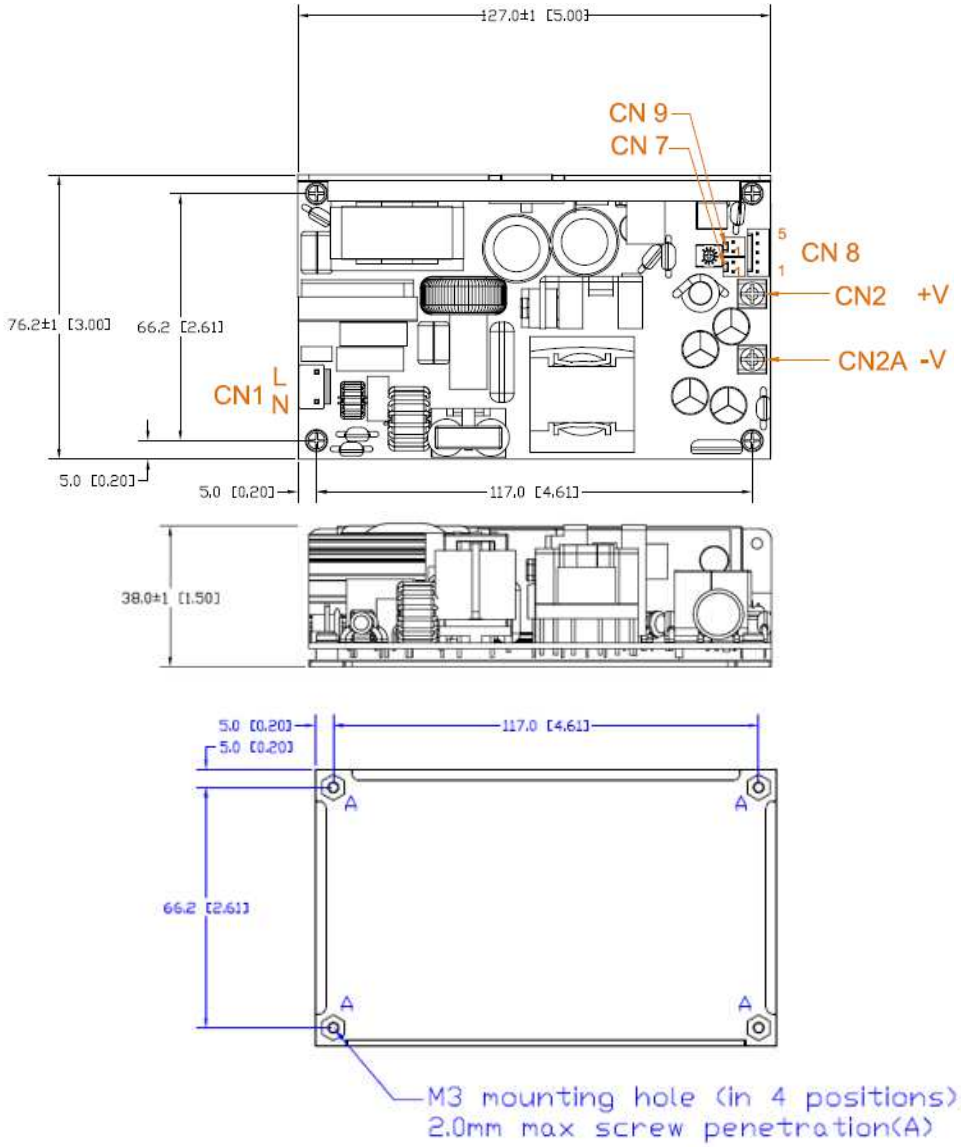
Mechanical Details

MPI-G50x(SB)

Ac Input Connector CN1
Metes with MOLEX
09-50-1031(5195-03) OR 09-52-4034(5239-03)
OR Equivalent
JST: VHR-3N OR Equivalent (Note)

PIN number	PIN assignment
1	AC In(L)
2	AC In(N)

Note:Exist with model no.suffixed -J,
plaese see comparison in Model no.coding:



Remote Sense CN7
MOLEX5045-02A or Equivalent

PIN number	PIN assignment
1	+Sen
2	-Sen

Singal Connector CN9
MOLEX5045-02A or Equivalent

PIN number	PIN assignment
1	12V Fan 0.48A Max
2	0V

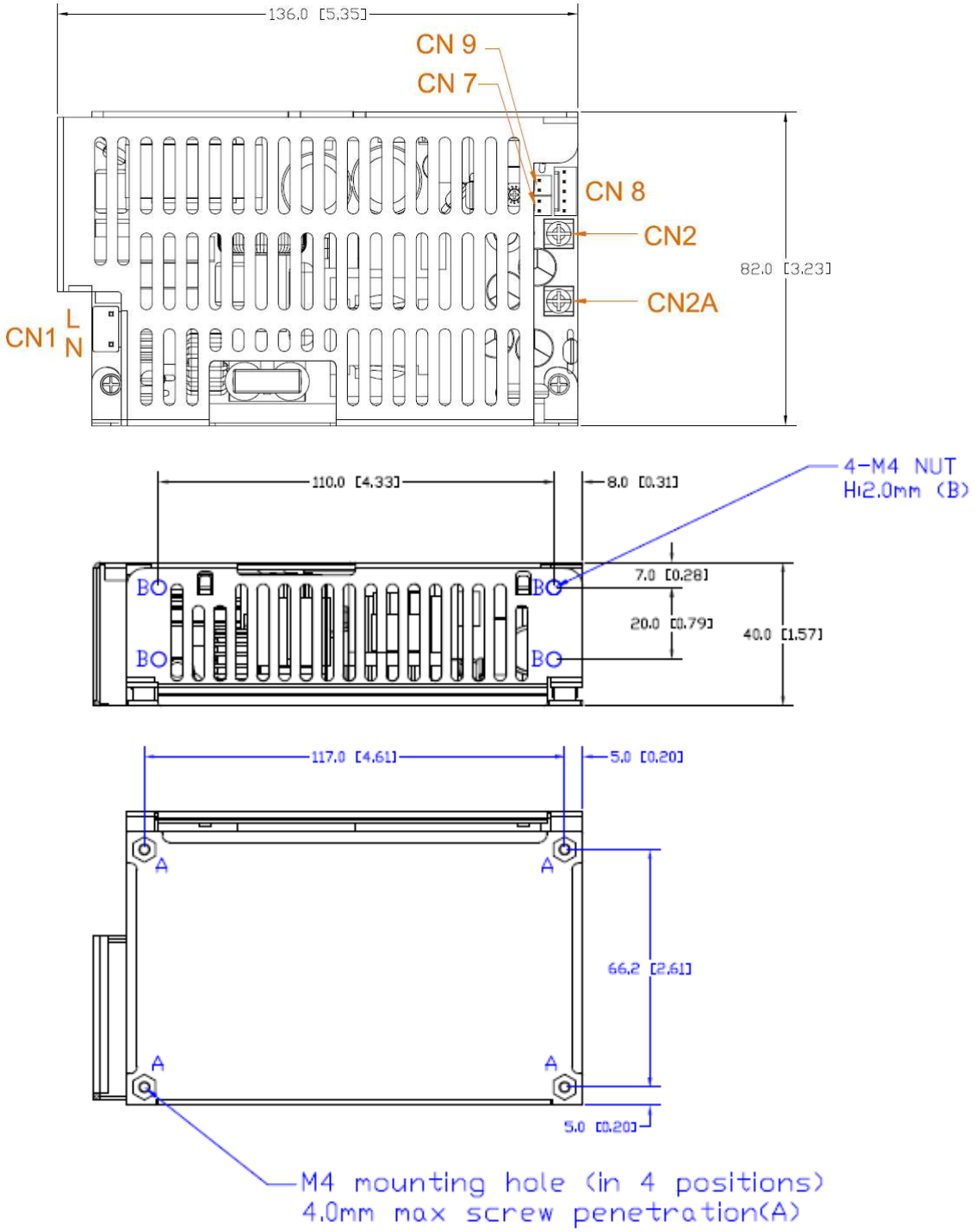
Singal Connector CN8
MOLEX5045-05A or Equivalent

PIN number	PIN assignment
1	Fan 12V (V_{Fan})
2	0V
3	+5VSB(V_2)
4	PG/PF
5	Remote

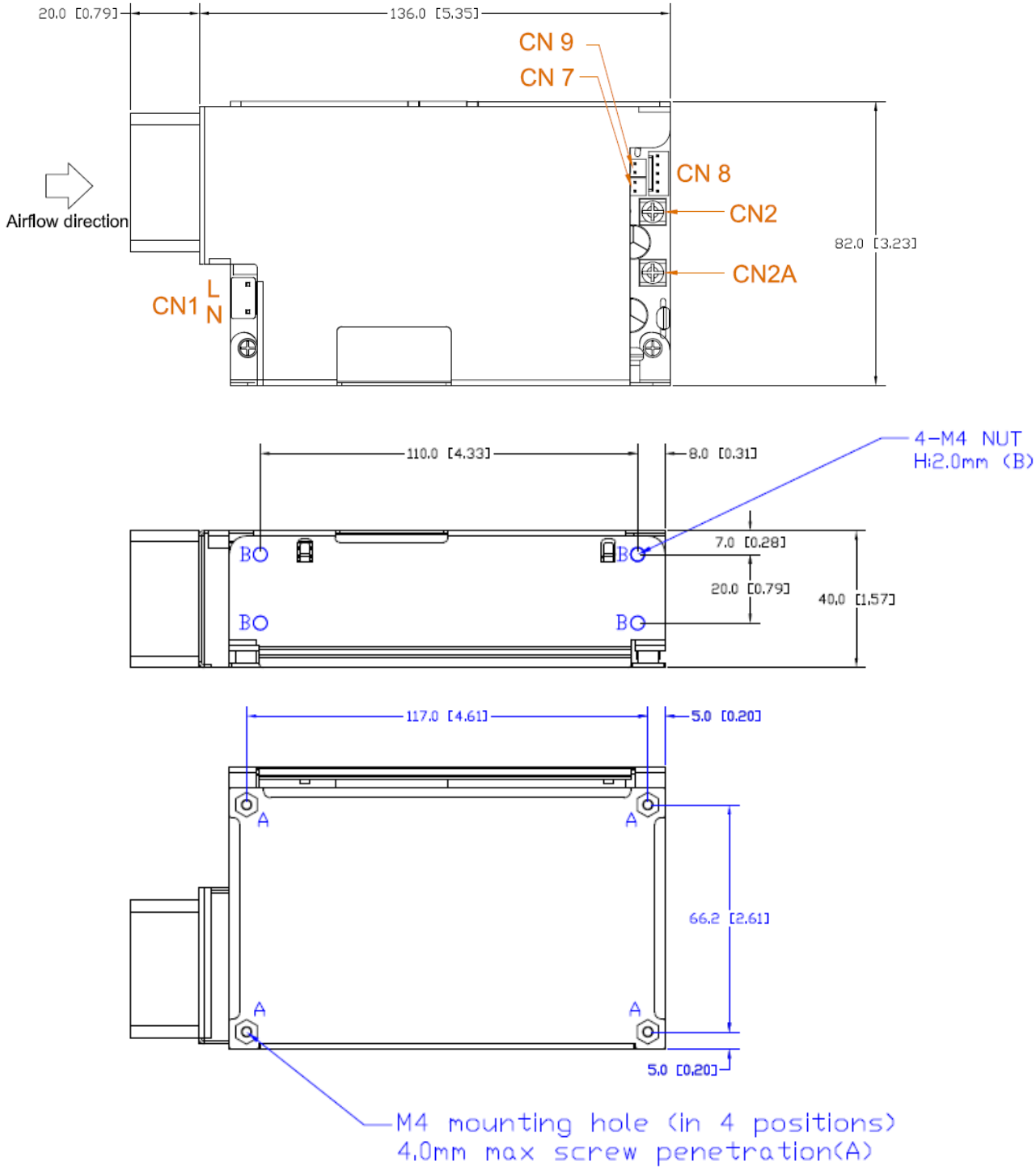
Dc Output Terminal Blocks
CN2 / CN2A
DINKLE DT-35
European type by request

PIN number	PIN assignment
CN2	+V
CN2A	-V

MPI-G50x-C


136.0 [5.35]
CN 9
CN 7
CN 8
CN2
CN2A
82.0 [3.23]
CN1
L
N
110.0 [4.33]
8.0 [0.31]
4-M4 NUT
H=2.0mm (B)
7.0 [0.28]
20.0 [0.79]
40.0 [1.57]
BO
BO
BO
BO
117.0 [4.61]
5.0 [0.20]
A
A
A
A
66.2 [2.61]
5.0 [0.20]
M4 mounting hole (in 4 positions)
4.0mm max screw penetration(A)

MPI-G50x-F


20.0 [0.79]
136.0 [5.35]
CN 9
CN 7
CN 8
CN2
CN2A
82.0 [3.23]
Airflow direction
CN1
L
N
110.0 [4.33]
8.0 [0.31]
4-M4 NUT
H=2.0mm (B)
7.0 [0.28]
20.0 [0.79]
40.0 [1.57]
BO
117.0 [4.61]
5.0 [0.20]
A
66.2 [2.61]
M4 mounting hole (in 4 positions)
4.0mm max screw penetration(A)